

REMARKS

Claims 1-43 are in the application for consideration. Claims 33, 36-37, 38-40, and 42-43 have been amended for clerical reasons, no new matter has been added through these amendments.

Claims 1-43 stand rejected over Lewis et al. in view of Wesley, Kamo et al., French et al., Liang et al. and Spangler et al., in various combinations. Applicant requests reconsideration of such rejections. Applicant thanks the Examiner for conducting the interview of September 17, 2003 where it was agreed that ion chamber 11 of the Lewis reference does not include a reference device and a conductive conduit.

Referring first to claim 1, such claim is believed to be allowable over the cited references for at least the reason that the cited references, either alone or in combination, neither teach nor suggest an electrically conductive conduit configured to receive particulate sample, and an electrically conductive reference device positioned proximate the discharge end of the conduit at a distance therefrom sufficient to allow an electrical potential to be established between the conduit and the reference device.

The Examiner is reminded that under MPEP §706.02(j) three basic criteria must be met when combining references. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one ordinarily skilled in the art, to combine the reference teachings. Second, there must be a reasonable expectation of success; and third, the combined references must teach or suggest all of the limitations of the claims. Also, the teaching or suggestion to make the claimed combination, and the reasonable expectation of success, must both be found in the prior art and not based on the Applicant's disclosure.

In pertinent part, claim 1 recites an ionization spectrometry source that includes an electrically conductive conduit configured to receive a particulate sample, and an electrically conductive reference device positioned proximate the discharge end of the conduit at a distance

therefrom sufficient to allow an electrical potential to be established between the conduit and the reference device.

The cited references do not teach or suggest an electrically conductive conduit positioned at a distance from an electrically conductive reference device sufficient to allow an electrical potential to be established between the conduit and the reference device. As indicated to be most relevant, Lewis apparently teaches a thermospray ion source configuration having an electrode, in either rod 27 or plate 45 form, within, and insulated 28 from, ion chamber 11. While rod 27 or plate 45 could be considered conductive, no mention or suggestion is made in Lewis that rod 27 or plate 45 is a conduit configured to receive particulate sample. Furthermore, rod 27 and plate 45 of Lewis cannot be considered both a conductive conduit and a reference device as recited in claim 1 (see Accompanying Statement of Interview).

The cited references do not teach or suggest an electrically conductive conduit positioned at a distance from an electrically conductive reference device sufficient to allow an electrical potential to be established between the conduit and the reference device. Claim 1 is therefore allowable. Applicant requests allowance of claim 1 in the Examiner's next action.

Claims 2-14 all depend from claim 1, and are therefore allowable for at least the reasons discussed above regarding claim 1.

Referring next to claim 15, such claim recites a spectrometer that includes, in pertinent part, an electrically conductive conduit configured to receive a particulate sample, and an electrically conductive reference device positioned proximate the discharge end of the conduit sufficient to allow an electrical potential to be established between the conduit and the reference device.

As discussed above, claim 15 is allowable for at least the reason that it recites an electrically conductive conduit proximate an electrically conductive reference device sufficient to allow an electrical potential to be established between the conduit and the reference device, and this limitation

is neither taught nor suggested by the cited references. Applicant requests allowance of claim 15 in the Examiner's next action.

Claims 16-32 all depend from claim 15, and are therefore allowable for at least the reasons discussed above regarding claim 15.

Referring next to claim 33, such claim recites a method that includes, in pertinent part, providing a first electrode, a second electrode proximate the first electrode and maintaining a first electrical potential at the first electrode, and a second electrical potential at the second electrode, such that an electrical potential exists there between.

As discussed above the cited references do not teach or suggest a first and a second electrode having an electrical potential therebetween. Claim 33 is therefore allowable and applicant requests allowance of claim 33 in the Examiner's next action.

Claims 34-36 all depend from claim 33, and are therefore allowable for at least the reasons discussed above regarding claim 33.

Lastly, with respect to claim 37, such claim recites a method that includes, in pertinent part, providing a first electrode, a second electrode proximate the first electrode and maintaining a first electrical potential at the first electrode, and a second electrical potential at the second electrode, at a point above breakdown potential there between such that the arrival of a particulate sample causes a corona discharge.

As discussed above the cited references do not teach or suggest a first and second electrode sufficiently proximate to have a breakdown potential nor to have a corona discharge upon the arrival of a particulate sample.

Claim 37 is therefore allowable and applicant requests allowance of claim 37 in the Examiner's next action.

Claims 37-43 depend from claim 37 and are allowable for at least the reasons discussed above regarding claim 37.

For the reasons discussed above, claims 1-43 are allowable. Accordingly, applicant respectfully requests formal allowance of claims 1-43 in the Examiner's next action.

Respectfully submitted,

Dated: 10/9/03

By: Alan D. Kirsch

Alan D. Kirsch
Attorney for Applicants
Reg. No. 33,720
P.O. Box 1625
Idaho Falls, Idaho 83415-3899
(208) 526-1371